To the Lord Mayor and
Members of Dublin City Council

Report No. 90/2020
Report of the Chief Executive

Comhairle Cathrach Bhaile Átha Cliath
Dublin City Council

The Liffey Cycle Route

1. Introduction

This report has been prepared in response to representations from Members, requesting that the Liffey Cycle Route (LCR) be implemented on a trial basis. It discusses the feasibility and makes recommendations on an interim scheme that could be trialled. The interim scheme, if approved by Members would be implemented in phases and completed by August 2020.

The provision of a dedicated cycle route along the Quays has been an objective in the Dublin City Council Development Plan (CDP) since the 2011-2017 CDP. It is an objective of the current CDP and since 2013 the Environment and Transportation Department (E&TD) has been attempting to put in place a dedicated cycle route along the Quays. The problem of space is a key element of the difficulties of this route as the Quays varies from a four lane road to sections which are barely two lane and has resulted in multiple options being unable to find approval.

In March 2019, Dublin City Council (DCC) received the Emerging Preferred Option for the permanent design of the LCR from the National Transport Authority (NTA). The design was presented at a special meeting of the Transport SPC, held on April 3rd 2019 and approved by Members at the City Council Meeting in May 2019. This was a major milestone in the project as it now allowed a project team to be formed and stakeholder consultation to commence. A major public consultation process was held in 2019 and a subsequent report on this was published in December 2019

The permanent scheme enables DCC to provide a segregated one-way cycle track eastbound from the Phoenix Park to Matt Talbot Memorial Bridge via the north Quays and one-way westbound via the south Quays. In order to achieve this continuous cycle route a variety of measures will be implemented. These include reassigning general traffic lanes to cycling and public transport, there will be a removal of car parking bays, loading bays, some taxi ranks and some trees to provide segregated cycling provision and increased bus priority. However, at specific pinch points, where there is currently insufficient width to accommodate all modes, the provision of boardwalks allows us to provide new pedestrian space and reassign existing footpath space to cycling. Figure 1 below shows existing and proposed images of the LCR on Wellington Quay/Essex Quay.

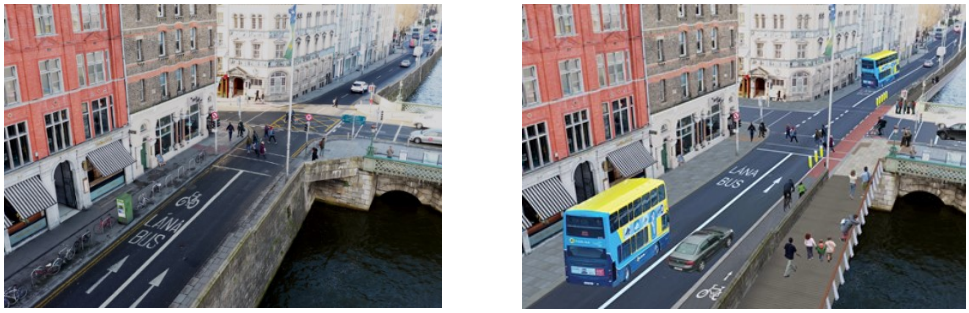

Fig 1- Photo Images

2. Update on the Permanent Liffey Cycle Route Scheme

The delivery of this permanent scheme requires the project team to resolve multiple issues and seek the views and requirements of city architects, conservation architects, surface water drainage, road maintenance, bridge design, Irish Water and other utilities companies.

The permanent scheme as approved, proposes major interventions to Quay walls and bridges thus presenting significant challenges. In addition, the scheme must be integrated with other pedestrian, cycle and bus priority schemes. There is also a corporate desire to take the opportunity of this project to enhance the Quays with urban realm improvements.

Screening reports for environmental assessments are also underway to determine the likely statutory planning route and whether a full Environmental Impact Assessment Report and application to An Bord Pleanála is required. For these reasons it is likely that the earliest delivery date for the permanent scheme is 2024.

3. Proposed Trial of the Liffey Cycle Route

The E&TD has been implementing interim measures to improve safety for cyclists at major junctions such as Leeson Street / St. Stephen's Green East through the Cycle Safe Intersections programme throughout 2019.

This has allowed the E&TD to trial multiple types of interventions which has provided interim protected cycle safety at a variety of locations. This programme is now fully funded in 2020 to further expand the protected cycle lanes and cycle safe intersection program to include areas such as High Street and approach roads to the city centre. These interventions have been proven to be effective and have provided significant safety enhancements for cyclists. The experience gained to date provides a source of the confidence that an interim LCR with protected cycle lanes would be achievable.

In order to determine whether a trial could be put in place a number of design criteria where set out and these are:-

1. The proposed trial cycle route should be robust enough to remain in place until the permanent scheme is implemented.
2. Interventions (with the exception of signalised crossings) should be temporary and achieved through road markings, bollards, lane separators (orcas), signal changes etc.
3. The desirable width of the protected cycle lane is 2 metres, for an interim scheme an absolute minimum width of 1 metre is deemed acceptable. Protected cycle lane widths below 1 metre cannot be implemented.
4. Sections of protected cycle provision should be continuous.
5. Bus priority should not be compromised and where possible should be enhanced.
6. No major alterations to bus stops. Cycle lanes through bus stops would be in-line (as existing) and not island bus stops.
7. Pedestrian footpath widths should not be reduced and where possible additional pedestrian crossings should be put in.
8. Cyclists should not be forced to share with pedestrians.
9. Where space does not allow a fully protected cycle lane, then at a minimum a 24/7 bus/cycle lane should be introduced. Where existing bus lanes are being used by cyclists these should also change to 24/7 operation.
10. Car parking, loading bays and taxi ranks may be removed as part of the trial.
11. No traffic diversions will be implemented, existing car park access and egress to be maintained.

An assessment of the kerb-to-kerb widths of each street along the route was undertaken and the minimum traffic lane and bus priority lane requirements were established; this information is available in Appendix A. Having applied the principles outlined above figure 2 below and the accompanying map summarise the proposal for the interim scheme that could be trialled.

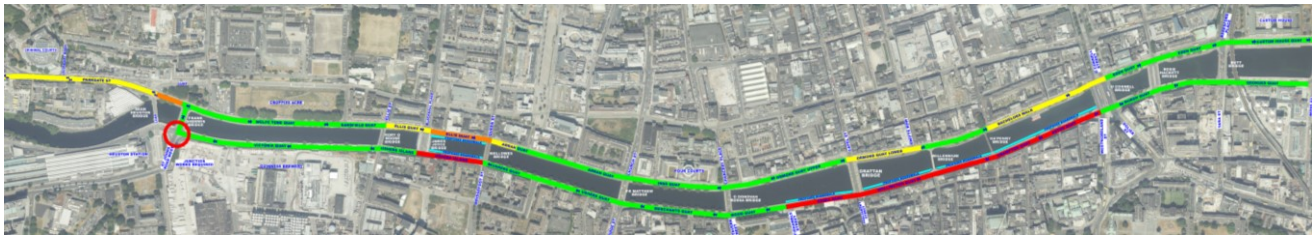

Fig 2 – Route Map

The green segments indicates where it would be feasible to fit 2 metre wide protected one-way cycle lanes. The sections in yellow and amber show where at least the minimum of 1 metre but not the desired 2 metres can be achieved. The red segments show where it is not possible to provide continuous sections of protected cycle lanes. The full listing of streets is provided in Appendix B.

4. Conclusion

The E&TD have estimated that the cost of providing the sections of interim continuous protected cycle lane sections shown in Fig 2 above and on the accompanying map is in the order of €800,000. The NTA has indicated that there is funding available for this type of implementation in advance of the permanent scheme.

For the sections shown in red where a continuous protected cycle lane cannot be provided, it is deemed that the option of converting the only general traffic lane to cycling provision is not feasible due to the impact on commercial activity and on Temple Bar and other city centre areas. It should be noted that the only permitted exit for traffic from the Fleet St Carpark is onto the narrowest sections of the south Quays.

5. Recommendation

The E&TD recommends that the Members support a phased implementation of the Liffey Cycle Route as a trial based on the criteria set out in this report in order to facilitate completion of the possible sections by August 2020.

It should be noted that the upgrades to pedestrian facilities along this route will be permanent.

Owen P. Keegan
Chief Executive
20th February 2020

Annex 1 – Proposed Lane Separators

Fig 1.1- Photo of Lane Separators (Orcas) between the cycle lane and the traffic lane on Leeson Street.

Annex 2 – Bus Priority Measures

Additional bus priority measures could be provided, particularly on Inns Quay and Ormond Quay Upper on the north Quays as well as Essex Quay and Ushers Island on the south Quays.

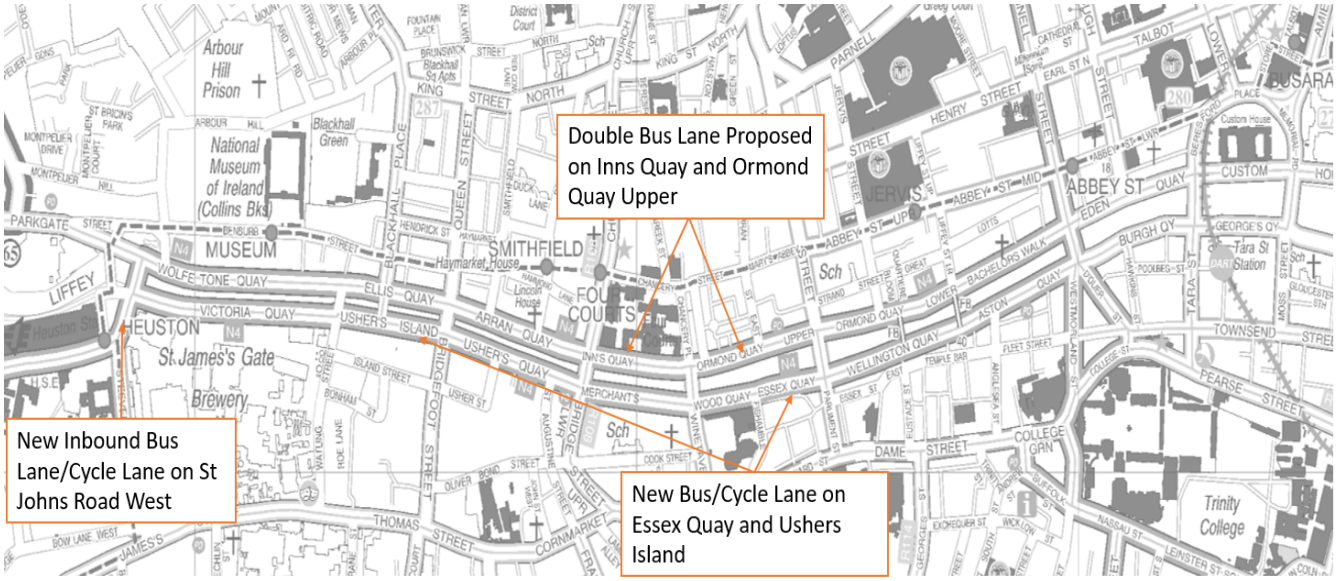

Fig 2.1- Graphic of Dublin City Street Guide map showing the proposed Bus priority Measures. Double bus lane proposed on Inns Quay and Ormond Quay Upper, new inbound bus lane / cycle lane on St. John's Road West and new bus/cycle lane on Essex Quay and Ushers Island.

Annex 3 - Locations of Parking Alterations

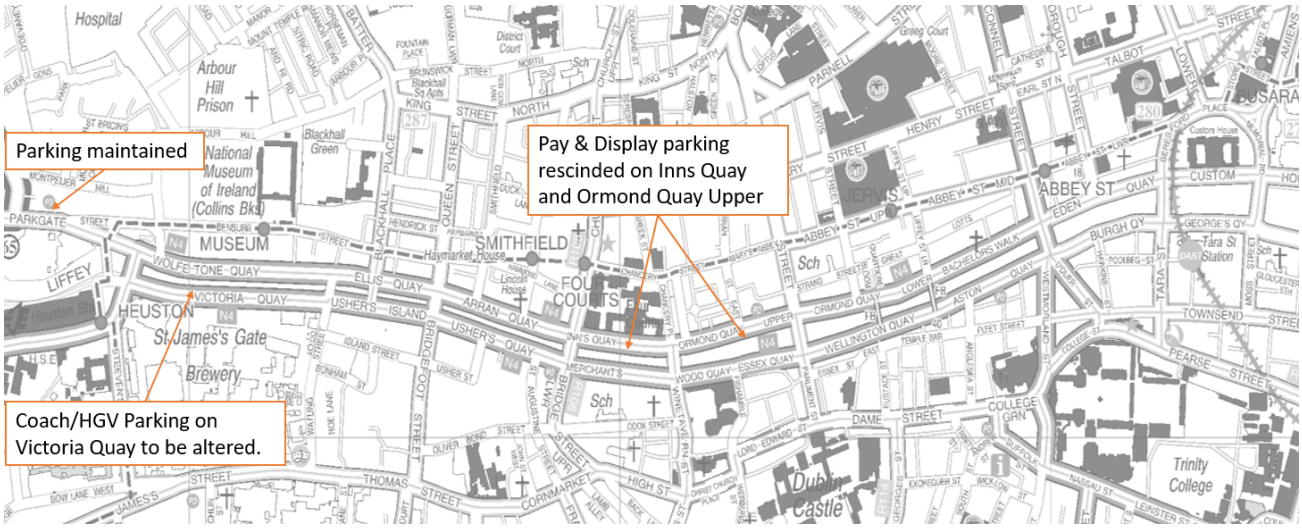

Fig 3.1 - Graphic of Dublin City Street Guide map showing the proposed car parking alterations. Parking maintained on Parkgate St, parking rescinded on Inns Quay and Ormond Quay Upper and alterations to Coach/HGV parking on Victoria Quay.

Annex 4 – Car Park Access and Egress Maintained

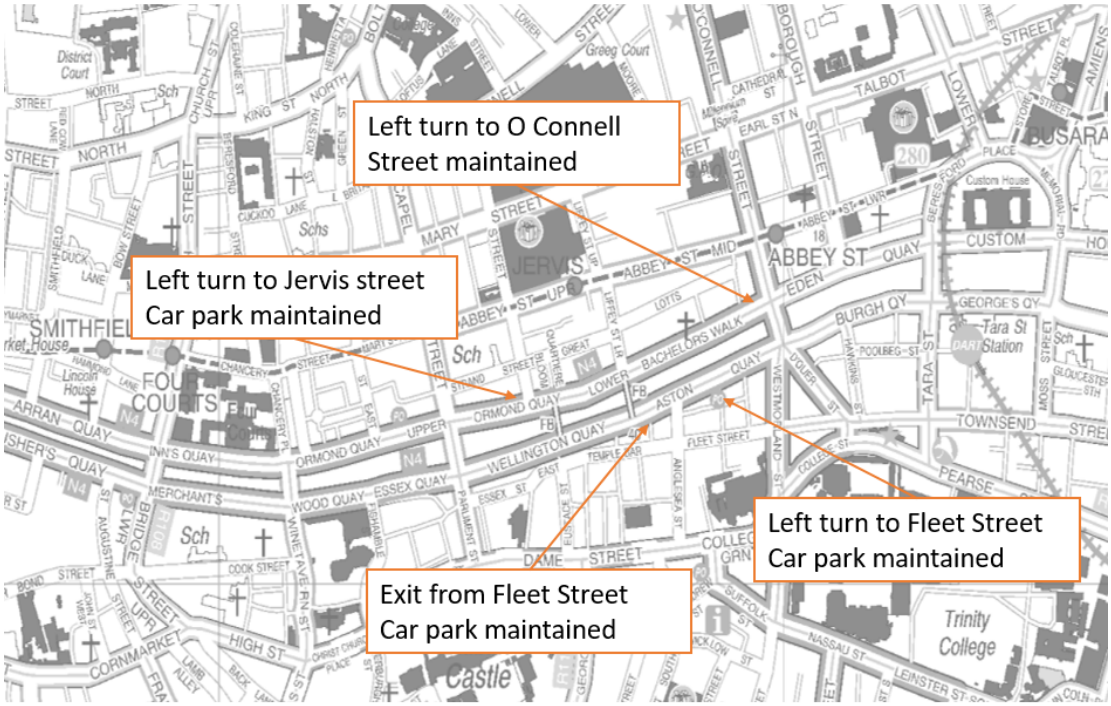

Fig 4.1 – Graphic of Dublin City Street Guide map showing car park access maintained. Left turn maintained from Bachelors Walk to O Connell Street, left turn maintained from Ormond Quay Lower to Swifts Row/Jervis Street, left turn maintained from Aston Quay to Fleet Street Car park and exit from Fleet Street Car park to Aston Quay maintained.

Appendix A

An assessment of the kerb-to-kerb widths of each street along the route was undertaken and the minimum traffic lane and bus priority lane requirements were established. The remaining carriageway width available was then reallocated to protected cycle lanes, the desirable width of the protected cycle lane is 2 metres, for an interim scheme an absolute minimum width of 1 metre is deemed acceptable, enhanced bus priority was also considered where possible. Existing footpaths were not reassigned to facilitate cycle lanes. Segregation from traffic would take the form of lane separators and flexible bollards along the route.

Street Name	**Average Kerb- to- Kerb Distance (m)**	**Proposed Provision**	**Width Required (m)**	**Remaining carriageway (m)**	**Traffic Management intervention**	**Possible Interim Scheme Proposals**
Parkgate Street (west of Infirmary Road)	16.0	1 Westbound traffic lane. 1 Westbound right turn lane. 1 Eastbound bus lane. 1 Eastbound traffic lane.	3 3 3 3	4	Remove westbound traffic lane	1.5m Eastbound cycle lane 1.5m Westbound Cycle lane 1m Buffer outside parking on north side.
Parkgate Street (east of Infirmary Road)	15.5	1 Eastbound bus lane. 1 Eastbound traffic lane. 1 Westbound traffic Lane. Permit Parking.	3 3 3 2.2	4.3	Remove westbound traffic lane	1.6m Eastbound cycle lane 1.6m Westbound Cycle lane 1m Buffer outside parking on north side.
Parkgate Street(between LUAS and Frank Sherwin Bridge	11.5	1 Eastbound bus lane. 1 Eastbound traffic lane. 1 Westbound traffic Lane.	3 3 3	2.5	Reduce existing lane widths	1.2m Eastbound cycle lane 1.2m Westbound Cycle lane
Wolfe Tone Quay	13.0	1 Eastbound bus lane. 1 Eastbound traffic lane. 1 Eastbound right turn traffic lane.	3.5 3 3	3.5	Remove eastbound traffic lane.	3.5m 2 lane one-way cycle lane

Street Name	Average Kerb- to- Kerb Distance (m)	Proposed Provision	Width Required (m)	Remaining carriageway (m)	Traffic Management intervention	Possible Interim Scheme Proposals
Sarsfield Quay	12	1 Eastbound bus lane. 1 Eastbound traffic lane. 1 Eastbound right turn traffic lane.	3.5 3 3	2.5	Remove eastbound traffic lane.	2.5m one-way cycle lane
Ellis Quay (east of Blackhall Place)	10.9	1 Left turn lane. 1 Eastbound bus lane. 1 Eastbound traffic lane.	3 3 3	1.9	Rearrange existing road markings.	1.9m way cycle lane
Ellis Quay(east of Queen St)	6.8	1 Eastbound bus lane. 1 Eastbound traffic lane.	3 3	0.8	Reduce existing Traffic lane locally to 2.8m.	1.0m way cycle lane
Arran Quay	7.8-8.2	1 Eastbound bus lane. 1 Eastbound traffic lane.	3 3	1.8-2.2	Rearrange existing road markings.	1.8-2.2m way cycle lane
Inns Quay	12.25	1 Eastbound bus lane with bus stops. 1 Eastbound traffic lane.	3 3	6.25	Rescind existing river side parking. Remove eastbound traffic lane. Rearrange existing road markings.	Provide additional bus lane(double bus lane) and 3m cycle track
Ormond Quay Upper	11.8	1 Eastbound bus lane with bus stops. 1 Eastbound traffic lane.	3 3	5.8	Rescind existing river side parking. Remove eastbound traffic lane. Rearrange existing road markings.	Provide additional bus lane (double bus lane) and 2.8m cycle lane

Street Name	Average Kerb- to- Kerb Distance (m)	Proposed Provision	Width Required (m)	Remaining carriageway (m)	Traffic Management intervention	Possible Interim Scheme Proposals
Ormond Quay Lower	9.0-10.3	1 Eastbound bus lane. 1 Eastbound traffic lane. 1 Left turn lane to Swifts Row.	3 3 3	0.0-1.3	Reduce the length of the left turn lane to Swifts Row. Rearrange existing road markings	Provide 1.3-1.5m cycle lane.
Bachelors Walk	10.4-10.6	1 Eastbound bus lane. Bus stops. 1 Eastbound traffic lane.	3 2.8 3	1.6-1.8	Any rearrangement of the current road markings on Bachelors Walk would require major civil works to the existing bus gate islands.	Consideration to be given to maintaining existing arrangement.
Eden Quay (O'Connell Bridge- Rosie Hackett Bridge)	14.2-14.4	1 Eastbound bus lane. 1 Eastbound traffic lane. 1 Eastbound bus lane accessing Rosie Hackett Bridge. Bus Stops.	3 3 3 2.8	2.4-2.6	Further assessments would be required to establish potential impacts on Eden Quay Taxi Rank.	Upgrade existing facility.
Eden Quay (Rosie Hackett Bridge-Butt Bridge)	18	1 Eastbound bus lane. 1 Eastbound traffic lane. 1 Northbound traffic Lane towards Beresford Place at junction. 1 contra-flow westbound bus lane with bus stops	3 3 3 6	Min 2m	Rearrange existing road markings.	Upgrade existing facility.

Street Name	Average Kerb- to- Kerb Distance (m)	Proposed Provision	Width Required (m)	Remaining carriageway (m)	Traffic Management intervention	Possible Interim Scheme Proposals
Custom House Quay	12	1 Eastbound traffic lane. 1 East Bus lane Contra Flow Bus lane	3 3 4	2m	Rearrange existing road markings.	Upgrade existing facility.
Georges Quay	10.5-11	1 westbound traffic lane. 1 westbound bus lane.	3 3	4.5-5	Remove westbound traffic lane.	Upgrade existing facility.
Burgh Quay (Butt Bridge- Rosie Hackett Bridge)	10.5-11	1 westbound traffic lane. 1 westbound bus lane. Central chevron.	3 3 2	2.5-3	Remove westbound traffic lane.	Upgrade existing facility.
Essex Quay	6.0	1 westbound traffic lane. 1 westbound bus lane.	3 3	0	Provide westbound bus/cycle lane.	New bus/cycle lane.
Ushers Island	9.1-9.7	1 westbound traffic lane. 1 westbound bus lane. 1 right turn lane towards James Joyce Bridge.	3 3 3	0.1-0.7	Provide westbound bus/cycle lane.	New bus/cycle lane.
Victoria Quay	13.25	1 westbound bus lane. 1 traffic lane towards Frank Sherwin Bridge. 1 traffic lane towards St Johns Road west. Access to Heuston Station.	3 3 3 3	Min 2m	Remove westbound traffic lane. Rearrange existing road markings.	Provide min 2m cycle lane.

Appendix B

List of streets and cycling facilities achievable

Green	Yellow	Orange	Red
Min 2m Cycle lane Protected Cycle Lane Achievable	Min 1.5m Protected Cycle Lane Achievable	Min 1.0m Protected Cycle Lane Achievable	No continuous Cycle Lane Achievable
• Wolfe Tone Quay • Sarsfield Quay • Ellis Quay(Ellis St – Blackhall Place) • Arran Quay • Inns Quay • Ormond Quay Upper • Ormond Quay Lower(Millennium Bridge – Hapenny Bridge) • Eden Quay • Custom House Quay • Georges Quay • Burgh Quay • Wood Quay • Merchants Quay • Ushers Quay • Victoria Quay	• Parkgate Street-(Phoenix Park-LUAS tracks, westbound and eastbound) • Ellis Quay-(Ellis St-Blackhall Place) • Ormond Quay Lower-(Capel St – Millennium Bridge) • Bachelors Walk	• Parkgate Street-(LUAS tracks–Frank Sherwin Bridge) • Ellis Quay-(Blackhall Place- Queen Street)	• Aston Quay • Crampton Quay • Wellington Quay • Essex Quay • Ushers Island

LIFFEY CYCLE ROUTE TRIAL FEASIBILITY STUDY - PROPOSED INTERIM SCHEME